For a reference to anticipate a claim, each element must be found, either expressly or under principles of inherency, in the reference. Applicant respectfully submits that Babayev fails to disclose each element of the invention defined by claims 45-49.

With respect to independent claim 45, Applicant submits that Babayev fails to disclose "identifying component processes for use in provisioning the requested service." The Office Action argues that col. 5, line 27 to col. 6, line 38 of Babayev discloses this claimed feature. Applicant respectfully disagrees. This portion of Babayev teaches the data structures used by Babayev's resource allocation program. The Office Action alleges that Babayev's data structures are "analogous" to the claimed component processes "since component processes are used in provisioning requested services in the present invention and the data structures provision service requests in col. 5, lines 33-34, where r identifies the service request." (See page 9 of the Office Action.) A process is a series of actions or steps towards achieving a particular end. In the present invention, the component processes are a series of actions or steps towards providing the requested service. In contrast, the data structures in Babayev do not involve providing the requested service. Rather, the data structures in Babayev merely identify service requests by number. Applicant therefore submits that Babayev's data structures do not disclose the claimed component processes.

Applicant further submits that Babayev fails to disclose "establishing conditions applicable to provision of those component processes," as further

required by claims 45-49. The Office Action argues that col. 2, line 64 to col. 3, line 3 teaches "establishing conditions applicable to provision of those component processes." (See page 2 of the Office Action.) Col. 2, line 64 to col. 3, line 3 states the following:

> "That is, the DFM includes: (a) an optimization function relating to the efficiency of utilization of service providers; and (b) a set of constraints, the constraints defining scheduling criteria such as, for example, the constraints that there is at most one service start time per service appointment or constraints insuring that for every work hour the number of service providers assigned for services does not exceed the total number of available service providers according to the predetermined forecast."

As described in Babayev, the DFM includes "a set of constraints, the constraints defining scheduling criteria." It appears that the Office Action alleges that these constraints in Babayev disclose "conditions." Applicant respectfully disagrees. In particular, the constraints of the DFM are not applicable to the provision of data structures. As discussed above, the Office Action alleges that the data structures disclose the claimed component processes. Even assuming arguendo that this characterization of the data structures of Babayev is accurate, the constraints of the DFM are not applicable to the provision of the data structures. Rather, the constraints are part of the DFM and the DFM is described in terms of data structures (see col. 6, lines 36-41).

Applicant further submits that Babayev fails to disclose "accessing an up-datable data store and storing said conditions when established," as required by claims 45-49. The Office Action apparently alleges that col. 2, lines 48-56 discloses this claimed feature. (See page 3 of the Office Action.) In this

passage of Babayev, the word "constraints" is used in relation to service time intervals. The Office Action appears to equate this use of the word "constraints" with the use of it in the following paragraph of Babayev which introduces the DFM and its set of "constraints." It is these constraints in the following paragraph of Babayev (including col. 2, line 64 to col. 3, line 3) that the Office Action cites as disclosing conditions. However, the "constraints" recited in col. 2, lines 48-56 is used merely to discuss that the scheduling of services can be later than the time at which the initial service request is received, but within the time boundaries/limits/markers/constraints of the specified time interval. Accordingly, the claimed "said conditions", i.e., constraints of the DFM (by the analogy expressed in the Office Action), are not stored in an updateable data store. Accordingly, Applicant respectfully submits that Babayev fails to disclose each element of claims 45-49.

Further with respect to claim 46, Applicant submits that Babayev fails to disclose "wherein one or more of said established conditions has an associated expiry time of the one or more conditions itself or storage in the data store." The Office Action again refers to col. 2, lines 48-56 as allegedly teaching this claimed feature. Applicant respectfully disagrees. As discussed above, this passage of Babayev merely discloses that the scheduling of services can be performed later than when the initial request is received but within the time constraints of the specified service time interval. While Babayev therefore refers to scheduling at a certain time, this time is certainly not the associated expiry time of the condition itself.

Further with respect to claim 47, Applicant submits that Babayev fails to disclose "identifying component processes" and "wherein one or more of said established conditions has an associated expiry time of the one or more conditions itself" as discussed above with respect to claims 45 and 46. Applicant further submits that Babayev fails to disclose "an expired or unidentified condition is detected in the data store, which condition is applicable to a component process for the provision of a requested service, and a <u>substitute</u> condition is established in response to said detection (emphasis added)." The Office Action alleges that col. 7, lines 15-22 and lines 37-54 discloses this claimed feature. (See pages 3 and 10 of the Office Action.) Applicant respectfully disagrees. Col. 7, lines 15-22 merely discuss a constraint applied to an optimization process used in Babayev. That is, this passage merely mentions one of the constraints of the DFM that is applied in an optimization process. There is no disclosure or even suggestion of constraint changes and thus no teaching whatsoever of a substitute condition. Col. 7, lines 37-54 discusses an objective function being maximized in an optimization process. The DFM includes an objective function and a set of constraints (see col. 6, lines 41-44). The objective function is therefore not a constraint. Even assuming arguendo that the constraint of Babayev discloses the claimed condition is correct, the Office Action's reasoning would fail. A condition can be met or not be met. This is not true of the objective function disclosed by Babayev.

With respect to claim 48, Applicant submits that Babayev fails to disclose "...further comprises initiating one or more of said component processes identified for use in the requested service." The Office Action alleges that col. 7, lines 55-60 discloses this claimed feature. (See page 3 and 10 of the Office Action.) Applicant respectfully disagrees. This passage of Babayev discusses whether or not the scheduler of Babayev is to be initialized. The passage states for example "certain data structures have their values retained between executions of the scheduler once it has been initialized." According to the rationale of the Office Action, the claimed component processes of the present invention are "analogous" to the data structures disclosed by Babayev. In light of this rationale of the Office Action, the data structures would need to be initialized in order to disclose the above claimed feature required by claim 48. However, in col. 7, lines 55-60, it is clear that the scheduler is initialized and <u>not</u> the data structures.

Accordingly, Applicant submits that claims 45-49 are not anticipated by Babayev and respectfully requests that the rejection of these claims be withdrawn.

Claims 50, 51, 57-60 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Wrabetz et al (U.S. '791, hereinafter "Wrabetz"). Applicant respectfully traverses this rejection.

Page 6, lines 11-14 of the Office Action admits that Wrabetz fails to disclose at least one of the elements required by claim 51. Claim 51 is

therefore not anticipated by Wrabetz. Applicant respectfully requests that the rejection of claim 51 under 35 U.S.C. §102(b) be withdrawn.

Claims 57 and 58 both depend from claim 53. Page 7, lines 16-21 of the Office Action explicitly admits that Wrabetz fails to disclose the "negotiation means" required by claim 53. Since claims 57 and 58 depend from claim 53, Wrabetz does not disclose all of the elements required by claims 57-58. Claims 57 and 58 are therefore not anticipated by Wrabetz. Accordingly, Applicant respectfully requests that the rejection of claims 57-58 under 35 U.S.C. §102(b) be withdrawn.

Claim 60 requires, inter alia, "wherein at least one of said instances is arranged to provide more than one instance of a service, or of a negotiation for a service, to one or more requesting systems concurrently." Page 6, lines 11-14 (discussing claim 51) admits that Wrabetz fails to disclose this feature. Claim 60 is therefore not anticipated by Wrabetz.

Claim 50 requires, inter alia, "programmed computer means for negotiating with another entity." Claim 59 requires, inter alia, "using a programmed computer to negotiate with another entity." The Office Action alleges that each of these limitations is disclosed by col. 7, lines 55-58 and col. 10, lines 49-53. (See page 4 of the Office Action.) Applicant respectfully disagrees. Page 11, lines 12-21 of the specification defines negotiation as a "joint decision making process in which the parties verbalise their (possibly contradictory) demands and then move towards agreement by a process of concession or search of new alternatives." In light of this definition, it is clear

that neither of the above passages cited by the Office Action teaches negotiation. In particular, col. 7, lines 55-58 merely describe that "The remote service is instantiated and initiated on each of the computer processors that is selected to perform a remote service in response to remote request." Col. 10, lines 49-53 merely indicate that a local area network described in Wrabetz might be connected to other computers. No negotiation is disclosed by either of the above passages of Wrabetz.

Applicant further submits that Wrabetz fails to disclose "means to update said data about said system on the basis of past performance of the system" as required by claim 50 or "updating said data on the basis of past system performance" as required by claim 59. The Office Action alleges that col. 26, lines 39-42 discloses the above required features of claims 50 and 59. (See page 4 of the Office Action.) Applicant respectfully disagrees. This passage of Wrabetz merely describes the function update_nw_res_instance which is used to record the latest current information regarding the availability of a network resource. This function is not used to record past performance of a resource.

Accordingly, Applicant respectfully requests that the rejection of claims 50, 51 and 57-60 under 35 U.S.C. §102(b) be withdrawn.

Claims 44 and 51-56 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Wrabetz in view of Babayev. Applicant respectfully traverses this rejection.

In order to establish a prima facie case of obviousness, all of the claimed limitations must be taught or suggested by the prior art. Applicant respectfully submits that the combination of Wrabetz and Babayev fails to teach or suggest all of the claimed limitations. For example, claim 51 is directed to a distributed computing environment having a <u>plurality of systems</u>. Each of the plurality of systems has features which is recited after the preamble of claim 51.

The Office Action appears to suggest that the resource management component of Wrabetz teaches or suggests the claimed feature "processing means to process the service request and provide a response thereto and adapted to decide, based at least in part on data held in an up-datable data store, whether to provide a service, to propose conditions under which the system is willing to provide a service or to decline to provide a service," as required by claim 51. However, the resource management component of Wrabetz only runs on one of the computers attached to the network. Accordingly, the above feature is clearly not provided in a plurality of systems as required by claim 51.

Claim 51 further requires "at least one of the systems is arranged to provide more than one instance of a service, or of a negotiation for a service, to one or more requesting systems concurrently." The Office Action alleges that col. 3, lines 12-20 of Babayev discloses this claimed feature. (See page 6 of the Office Action.) Applicant respectfully disagrees with this allegation. A service corresponds to some unit of problem solving activity (see the specification, page 11, lines 6-7). The claim requires "more than one instance of a service." That is, the claim requires more than one instance of the same

service. In contrast, col. 3, lines 12-20 of Babayev discloses "concurrently constructing schedules for each of a plurality of scheduling time periods (e.g., days or weeks)...."

The Office Action also alleges that the abstract and col. 2, lines 16-17, 25-27 and 36-37 of Wrabetz disclose the claimed feature "wherein each of said systems is associated with a plurality of organizations, each of said systems having a processing means and means to access stored parameters in the updateable data store in respect of each of its associated plurality of organizations so as to provide a virtual organization." (See page 6 of the Office Action.) The Office Action apparently equates the heterogeneity of the computers attached to the network with this feature. The effect of this is that the Office Action makes an association between the word "organization" and an operating system program. This is not sensible. An operating system program is a sequence of instructions. An operating system program is not in any sense an "organization". It would therefore be clear to one of ordinary skill in the art, when reading the specification as a whole (and page 1, lines 19-21 of the specification in particular) that an organization is intended to be a structure through which individuals cooperate systematically to conduct business. A plurality of organizations is therefore more than one such structures. A virtual organization is defined on page 5, lines 24-28 of the specification as being "two or more actual organizations which are linked for a defined period of time, for example, by a business agreement or contract, and are treated for the purposes of the present invention as a single organization."

Applicant therefore submits that Wrabetz fails to disclose the above claimed feature.

Accordingly, even if Wrabetz and Babayev were combined as proposed by the Office Action, the combination would not have taught or suggested all of the claimed limitations required by claim 51. Accordingly, Applicant respectfully submits that claim 51 and claim 52 which depends therefrom are not "obvious" over Babayev and Wrabetz.

With respect to independent claim 53 and its dependents, Wrabetz discloses two interactions between a user program in a remote computer which take place before that remote computer provides a service to that user program. The first interaction involves the sending of a resource query to the resource management component and the returning of a resource list in response. The second interaction involves the sending of a service request to a remote computer and the provision of the requested service by that remote computer.

The Office Action equates the claimed "service request" with the request for processing by a remote computer. However, the Office Action then proceeds to suggest that col. 7, lines 55-63 and col. 14, lines 49-56 teach the claimed feature "service request processing means for identifying component processes for use in provisioning the requested service." Applicant respectfully disagrees with this reasoning of the Office Action. There is no suggestion that the computer receiving the request for processing identifies component processes. Rather, Wrabetz merely discloses the computer performing the process (col. 7, lines 55-63). The other passage cited by the Office Action

merely sets out the format of the request made to the resource management component. This does not involve identifying component processes for use in provisioning the requested service either.

The Office Action then proceeds to suggest that Wrabetz discloses the claimed feature "an output for providing a response to the service request, said response comprising an indication of the availability of the requested service." The Office Action apparently alleges that col. 7, lines 55-63, col. 8, lines 1-7 and col. 16, lines 58-60 disclose this feature. Applicant respectfully disagrees. The cited passage in cols. 7 and 8 relate to a service request seen in Wrabetz, and the cited passage of col. 16 refers to a "resource query". It is thus unclear whether the Office Action relies on the "service request" or the "resource query". If the Office Action relies on the "service request", then no indication of availability is returned. The process is either performed or fails. If the Office Action relies on the "resource query", the Office Action's comments here is inconsistent with the comments in relation to other parts of the claim. This also applies to the Office Action's suggestion that the last part of the claim equates to the handling of the resource query in Wrabetz. It does not. The performance of the task is in response to the service request (col. 7, lines 55-63) after the sending of a condition in the resource query (col. 14, lines 49-54). In Wrabetz, the condition in the resource query determines whether the service request is sent rather than whether the service request is responded to. In contrast, the conditions in the present invention determine whether the service request is responded to.

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The Office Action further alleges that the Babayev at col. 3, lines 12-20 teaches the claimed "negotiation means for use in establishing conditions applicable to provision of those component processes." As discussed above with respect to claims 50 and 59, Babayev does not disclose negotiation.

Accordingly, even if Babayev and Wrabetz were combined as proposed by the Office Action, the combination would not have taught or suggested all of the claimed limitations.

Claims 44 and 52, claim 44 and 52 depend from claim 60 and 51, respectively and are therefore allowable at least by nature of that dependency. Moreover, the passage in Babayev cited by the Examiner, namely: "A method for scheduling customer service requests for a predetermined time period" contains the words "for a predetermined time period" but quite clearly this is the time period for which a service call by a representative of a utility or telecommunications company is scheduled. That time period has nothing to do with the time period for which the program proposed by Babayev runs.

Claims 54-56 depend from claim 53 and are thus allowable for at least the reasons discussed above with respect to claim 53. Claims 54 and 55 have similar claim features as the ones found claim 46 and 47 discussed above and are thus allowable for these additional reasons.
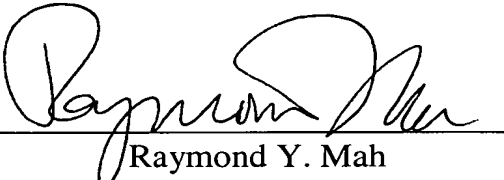
Accordingly, Applicant respectfully submits that claims 44 and 51-56 are not "obvious" over Wrabetz and Babayev and respectfully requests that the rejection of these claims under 35 U.S.C. §103 be withdrawn.

Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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